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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

ISSING, GREGORY C

ART UNIT PAPER NUMBER

3662

DATE MAILED: 11/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/924,235

Applicant(s)

KITAYOSHI, HITOSHI

Examiner

Gregory C. Issing

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1 and 3-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. The claims remain indefinite. Firstly, the language of the step "comparing an observed pattern of intensities versus arrival directions of a radiowave" is not understood, particularly with respect to the language "versus". Perhaps the intention of the applicant is "intensities associated with respective arrival directions"? However, it is not clear to the Examiner what this refers to. Similar confusion exists with the language "simulated patterns of intensities . . . versus emitting directions." It is not clear what is meant by "simulated patterns . . . of a simulated radiowave emitted from said one position" since it appears as though there is an actual emission ("radiowave emitted from"); what is "simulated" about it. Applicant's arguments allege that there is no interaction between the two devices; this brings into question how the monitoring station determines simulated patterns of intensities versus emitting directions if there is no station monitoring the emissions from the monitoring station. It remains unclear how the patterns of intensities at other plural positions are determined; the claim uses the monitoring station at the one position to emit "a simulated wave", thus, it is not understood how the emission of a simulated wave can be utilized in any manner to determine characteristics in the observation area without measurement thereof at some time. The claims merely set forth that the radiowaves are emitted into the plurality of regions and that the field intensities are computed but fails to show how this is possible or how it is performed.

4. in claim 1, the language "simulated patterns of intensities" does not provide a proper antecedent basis for "the simulated pattern being obtained."

5. In claim 6, "said on position" is typographically incorrect.

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

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art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 1 and 3-19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The claims are insufficiently disclosed with respect to how a "simulated radiowave" is emitted and how it is used to measure field intensities remote therefrom in the plurality of regions.

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

9. Claims 1 and 3-19 are rejected, as best understood, under 35 U.S.C. 103(a) as being unpatentable over Wax et al (6,249,680) in view of Olsson (5,564,079).

10. Wax et al teach a method for locating an unknown radio transmitter, in the form of a mobile phone 50, including the steps of measuring, at one position station 38 in an observation area, an observed pattern of a radio wave transmission from the mobile transmitter 50 via measurement of a signal spatial signature, comparing the observed pattern measured at station 38 to a set of stored calibration patterns associated with a plurality of locations within an observation area, measuring a similarity between the observed pattern and the set of calibrated patterns to find a degree of closeness, and selecting the value with the highest degree of closeness as representing the position of the unknown transmitter (9:42-66). Wax further teaches "although this database may be generated by various techniques, in the preferred embodiment . . ." (8:60-62); this clearly suggests to the skilled artisan that other forms of database forming are clearly obvious to the skilled artisan.

11. Olsson is also directed to a method for locating a mobile telephone and further teaches the conventionality of forming a database for a neural network that associates measured signal characteristics to position information in a predetermined area of coverage such that the database is formed using emissions from the base station.

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12. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Wax et al by incorporating the teachings of Olsson wherein the database is formed using radiowaves emitted by the station 38 in light of the suggestion by Wax et al to utilize various techniques for forming the database.

13. The applicant argues "in the present invention, however, the monitor station monitors a radiowave from a radiowave emitting source located at the one position and compares the observed pattern with the simulated pattern." The applicant proceeds with "the simulated patterns are created by emitting a simulated radiowave from the position of the monitor station while changing the direction of the simulated radiowave . . . the simulated patterns are created without using any radiowave from the radiowave emitting source." These statements allegedly prove that the basic principle of operation and structure is completely different from that cited by Wax et al. Firstly, the statement "monitor station monitors a

radiowave from a radiowave emitting source located at the one position" appears to be contradictory to the applicant's statement with respect to the 35 USC 112 rejection (paragraph bridging pages 18-19 of the remarks. Due to the contradictory remarks, this argument is not persuasive. Regarding the specifics of such language, it is not seen how Wax et al differ since the station 38 monitors a radiowave, spatial signal signature, emitted from the radiowave emitting source, i.e. the mobile telephone 50. Secondly, regarding the applicant's comments that the simulated patterns are created without using any radiowave from the radiowave emitting source, Wax et al do not use the radiowave signals from the unknown emitting source to create the neural network; a reference mobile device performs the calibration steps. Lastly, the applicant's summary that the basic principle of operation and structure of the claimed subject matter is completely different from Wax et al is speculation. The combination of the references wherein only the step of database forming is modified, is clearly suggested by Wax et al as set forth above and the modification shows the conventionality of using the base station transmission as a source of a database constructed for associating signal characteristics with location parameters. The applicant's arguments are therefore not convincing.

14. Claims 1 and 3-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiura et al in view of Olsson.

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15. Sugiura et al disclose a method and system for locating an unknown mobile transmitter 1101, see Figure 10, wherein at least one base station 1104, observes signal characteristics from the radiowave emission of the unknown transmitter and using a position estimation processing section 1116 inputs such into a neural network which outputs the position of the mobile transmitter (27:34-51). The neural network equates to a comparison of the measured characteristics to learned characteristics wherein the learned characteristics. The neural network is operated in a learning mode wherein a mobile station issues a radiowave from a plurality of measuring points known in advance which is observed at a base station such that the plurality of observed measurements as well as associated positional information are correlated (26:63 – 27:33). The mobile station operated during the learning mode and estimating modes are not necessarily the same (28:4-6).

16. Sugiura et al differ from the claimed subject matter since the same “one position” is not utilized for observing the unknown radiowave emitting source and for generating the simulated patterns using signals emitted therefrom.

17. Olsson is also directed to a method for locating a mobile telephone and further teaches the conventionality of forming a database for a neural network that associates measured signal characteristics to position information in a predetermined area of coverage such that the database is formed using emissions from the base station.

18. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Sugiura et al by incorporating the teachings of Olsson wherein the database is formed using radiowaves emitted by the station 38 so as to not require the use of known in advance measuring points but rather provide dynamic points of reference to allow for changes wherein more resolution is required.

19. Applicant argues that Sugiura et al only teach the mobile station measuring and forwarding the reception radio waves. This is not convincing since, of the various embodiments disclosed in Sugiura et al, at least the embodiment of Figure 10 shows the base station measuring the signal characteristics of the unknown emission source. The applicant's argument that the present invention does not involve a plurality of base stations or a control station fails to address claim language. The applicant's argument

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that based on reciprocity, the monitor station monitors a radiowave from a radiowave emitting source located at the one position appears contradictory the statements by the applicant to describe/overcome the 35 USC 112 rejection and therefore is not persuasive. If the "one position" corresponds to the location of the monitoring station and the radiowave emitting source is also located at the same location, the purpose of the invention is not understood. Lastly, the applicant's summary that the basic principle of operation and structure of the claimed subject matter is completely different from Sugiura et al is speculation and therefore not persuasive.

20. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory C. Issing whose telephone number is (571)-272-6973. The examiner can normally be reached on Monday - Thursday 6:00 AM- 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Tarcza can be reached on (571)-272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Gregory C. Issing
Primary Examiner
Art Unit 3662

gci
